

Abstract

This thesis deals with metal nanoparticles and their antibacterial effects. Nanotechnologies have been paid intensive attention both in scientific and public area. Some metal nanoparticles possess provable antibacterial potential. Nowadays, when the growing resistance of pathogenic bacteria represents an important issue, metal nanoparticles could be one of the potential solutions to the problem.

Interactions of metal nanoparticles with bacteria have however not yet been fully understood. It is also evident that their effects depend on various physical and biological factors. The cytotoxicity of nanoparticles to eukaryotic organisms has not been explored in depth either. These all are the reasons why the practical use of nanoparticles has still many limitations. This thesis summarizes information available on the topic of bactericidal effects of metal nanoparticles.